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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

NEWVILLE, TONI E

ART UNIT	PAPER NUMBER
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3671

DATE MAILED: 09/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/765,563

Applicant(s)

STREET, BENJAMIN A.

Examiner

Toni Newville

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/19/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the blower (claim 11) and rear-mounted quick attachment (claim 24 parts c and e) comprising a rake or box scraper (claim 26) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 7, 8, 12-14 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith, US 2228490.

Regarding claim 1, Smith discloses a grooming vehicle comprising:

- A frame (10) supported for movement by a plurality of ground engaging wheels comprising two rear wheels (11) and a steerable front wheel (13), wherein at least some of the wheels are driven to allow the frame to be self-propelled (column 2 lines 28-29);
- A support (axle of Fig. 2) on which the steerable front wheel (13) is rotatably journaled, the front wheel support being further pivotal about a vertical pivot axis (axis defined by 14) to pivot the front wheel from side to side to steer the vehicle; and
- A ground grooming implement (32) carried on the front wheel support of the steerable front wheel (13) to pivot with the front wheel about the vertical pivot axis as the front wheel (13) pivots about the vertical pivot axis.

Regarding claim 2, the implement (32) is connected to the front wheel support through a four bar linkage (25, 29) to permit the implement to be raised and lowered (column 2 lines 1-17).

Regarding claim 3, the four bar linkage (25, 29) is pivotally connected at one end to the front wheel support (column 2 lines 51-53 and column 3 lines 1-3).

Regarding claim 4, the four bar linkage (25, 29) is pivotally connected at another end to the implement (32) through a quick attachment (28).

Regarding claim 7, the implement (32) comprises a bulldozer blade (Fig. 1) for pushing granular material.

Regarding claim 8, the blade (32) is also pivotal about a substantially horizontal axis when pushing the granular material.

Regarding claim 12, the vehicle comprises:

- A frame (10) supported by a plurality of ground engaging wheels (11, 13);
- A blade (32) coupled by an attachment (25, 29) to a front of the frame (10) for pushing granular material on a granular material surface, the blade (32) being pivotally connected to the attachment for pivoting about a substantially horizontal axis relative to the attachment (25, 29) when the

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blade is in engagement with the granular material to allow the blade to become more or less inclined relative to the granular material as the vehicle traverses over the granular material surface (column 2 lines 1-17).

Regarding claim 13, the attachment (25, 29) is pivotally carried (at 30 and 26) on the frame (10).

Regarding claim 14, the attachment is coupled to the frame (10) through a pivotal four bar linkage (25, 29, see Fig. 2).

Regarding claim 19, the blade (32) is coupled by the attachment (25, 29) to a steerable front wheel (13) on the frame (10) such that the attachment (25, 29) and the blade (32) steer in concert with the front wheel (13).

4. Claim 20 is rejected under 35 U.S.C. 102(b) as being anticipated by Stiller, US 6347671.

Regarding claim 20, Stiller discloses a grooming vehicle (102) comprising:

- A frame (101) supported for movement over the ground by a plurality of ground engaging wheels (104, 106), wherein at least one wheel (104) is driven to self-propel the frame (101) over the ground;

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- A quick attachment (105) comprising male (202) and female (132) couplers, the couplers interfitting with one another with the female coupler nesting over the male coupler (202);
- A linkage (216) for connecting the male coupler (202) to a front of the frame (101); and
- A blade (122) carried on the female coupler (132) for pushing granular material, wherein the blade (122) can be attached to the front of the frame (101) by nesting the female coupler over the male coupler (202).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5, 6, 10, 11, 17, 18, and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith, US 2228490, in view of Stiller et. al., US 6347671.

Regarding claim 5, Smith discloses a grooming vehicle as described above, including a quick attachment (28). Smith fails to disclose the quick attachment being A-shaped.

Like Smith, Stiller discloses a vehicle (102) containing a grooming attachment (122) comprising a quick attachment (200). Unlike Smith, Stiller discloses the quick attachment (105) being A-shaped (Fig. 2).

Given the suggestion in Stiller, it would have been obvious to one of ordinary skill in the art to modify Smith as taught in Stiller by making the quick attachment (Stiller; 200) A-shaped because the contour of A-shaped quick attachment couplings allows for quick, simple assembly and prevents rotation of the couplings about a vertical axis.

Regarding claim 6, Smith discloses a grooming vehicle as described above, including a manually operable actuator (37) on the front wheel support for rotating a four bar linkage (25, 29) to raise and lower an implement (32). Smith fails to disclose a powered actuator on the front wheel support for rotating the four bar linkage (25, 29) to raise and lower the implement (32).

Like Smith, Stiller discloses a vehicle (102) containing a front support (100) carrying a ground grooming implement (122) and an actuator (224) on the front support (100) for rotating a linkage to raise and lower the implement (122) (abstract lines 6-8). Unlike Smith, Stiller discloses the actuator (224) being a hydraulic actuator (column 8 line 44-48).

Given the suggestion in Stiller, it would have been obvious to one of ordinary skill in the art to modify Smith as taught in Stiller by making the actuator (Smith; 37) powered to minimize manual effort required by the operator.

Regarding claim 10, Smith discloses a grooming vehicle as described above, including a quick attachment for attaching a blade (32). Smith fails to disclose a lock for locking the blade against pivoting about the substantially horizontal axis.

Like Smith, Stiller discloses a grooming vehicle (102) including a quick attachment (105) for attaching a blade (122). Unlike Smith, Stiller discloses a lock (152) for locking the blade (122) against pivoting about a substantially horizontal axis (column 10 lines 17-21).

Given the suggestion in Stiller, it would have been obvious to one of ordinary skill in the art to include a lock to prevent pivoting of the blade about a substantially horizontal axis so that a constant blade pitch angle can be maintained during operation.

Regarding claim 11, Smith discloses a grooming vehicle including a ground grooming implement (32) comprising a blade. Smith fails to disclose having the implement (32) comprise a blower.

Like Smith, Stiller discloses a grooming vehicle (102) including a ground grooming implement (122). Unlike Smith, Stiller discloses that the implement (122) could comprise a blower (abstract lines 20-23).

Given the suggestion in Stiller, it would have been obvious to replace the blade (32) of Smith with a blower as taught in Stiller because blowers are commonly known in the art as grooming vehicle attachments.

Regarding claim 17, Smith discloses a grooming vehicle including a quick attachment (28) coupling a blade (32) to a front of a frame (10). Smith fails to disclose the quick attachment (28) having male and female couplers.

Like Smith, Stiller discloses a grooming vehicle (102) comprising a quick attachment (105). Unlike Smith, Stiller discloses the quick attachment (105) comprising male (202) and female (132) couplers, the male coupler (202) attached to a front of a frame (101), and the female (132) coupler carrying a blade (122).

Given the suggestion in Stiller, it would have been obvious to modify Smith as taught in Stiller by having the quick attachment comprise male and female couplers because the shape of such couplers allows for easy and quick blade attachment.

Regarding claim 18, Smith discloses a grooming vehicle as described above, including a quick attachment (28). Smith fails to disclose the quick attachment (28) being A-shaped.

Like Smith, Stiller discloses a vehicle (102) containing a grooming attachment (122) comprising a quick attachment (105) having couplers (132, 202). Unlike Smith, Stiller discloses the couplers (132, 202) being A-shaped (Fig. 2).

Given the suggestion in Stiller, it would have been obvious to one of ordinary skill in the art to modify Smith as taught in Stiller by making the quick attachment couplers (Stiller; 132, 202) A-shaped because the contour of A-shaped quick attachment couplers allows for quick, simple assembly and prevents rotation of the couplers about a vertical axis.

Regarding claim 20, Smith discloses a grooming vehicle comprising:

- A frame (10) supported for movement over the ground by a plurality of ground engaging wheels (11, 13), wherein at least one wheel is driven to self-propel the frame over the ground (column 2 lines 28-29);
- A quick attachment (28);
- A linkage (25, 29) for connecting the quick attachment (28) to a front of the frame (10); and
- A blade (32) carried on the quick attachment for pushing granular material, wherein the blade (32) can be attached to the front of the frame (10) by the quick attachment (28).

Smith fails to disclose the quick attachment (28) comprising male and female couplers, the couplers interfitting with one another with the female coupler nesting at least partially over the male coupler, the male coupler linked to the front of the frame and the female coupler linked to the blade.

Like Smith, Stiller discloses a vehicle (102) containing a grooming attachment (122) comprising a quick attachment (105). Unlike Smith, Stiller discloses the quick attachment having male (202) and female (132) couplers, the female coupler (132) nesting over the male coupler (202). Stiller further discloses the male coupler (202) connecting to a front of a frame via a linkage (216), and the female coupler (132) carrying a blade (122).

Given the suggestion in Stiller, it would have been obvious to use interfitting male and female couplers in the vehicle of Smith because the shape of such couplers allows for easy and quick blade attachment.

Regarding claim 21, the linkage in Smith is a pivotal four bar linkage (25, 29 and column 2 lines 51-53 and column 3 lines 1-3).

Regarding claim 22, Smith discloses the blade (32) being pivotal about a substantially horizontal pivot axis relative to the quick attachment (28).

Regarding claim 23, Smith discloses a grooming vehicle as described above, including a quick attachment (28) for attaching a blade (32). Smith fails to disclose a lock for locking the blade (32) against pivoting about the quick attachment (28).

Like Smith, Stiller discloses a grooming vehicle (102) including a quick attachment (105) comprising a female coupler (132) for attaching a blade (122). Unlike Smith, Stiller discloses a lock (152) for locking the blade (122) against pivoting about the quick attachment (column 10 lines 17-21).

Given the suggestion in Stiller, it would have been obvious to one of ordinary skill in the art to include a lock in the vehicle of Smith to prevent pivoting of the blade about the quick attachment (Smith; 28) so that a constant blade pitch angle can be maintained during operation.

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7. Claims 9, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith, US 2228490, in view of Curtis, US 6145222.

Smith discloses a grooming vehicle as described above, including a blade (32) pivotal about a substantially horizontal axis when pushing granular material. Smith fails to disclose the blade (32) being spring biased against pivoting about the substantially horizontal axis into a generally upright orientation.

Like Smith, Curtis discloses a grooming assembly (10) for mounting to a vehicle, the grooming assembly mounting a blade (Fig. 2), the blade being pivotal about a substantially horizontal axis (Fig. 6). Unlike Smith, Curtis discloses the blade being spring biased into a generally upright orientation (claim 16), the pivoting about the substantially horizontal axis being against the spring bias (claims 9 and 15) (column 4 lines 22-26).

Given the teaching in Curtis, it would have been obvious to one of ordinary skill in the art to make the blade of Smith (Smith; 32) urged into an upright position by having its pivoting about a horizontal axis be against a spring bias so as to maintain the blade (Smith; 32) in an upright position during movement over ground.

8. Claims 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stiller et. al., US 6347671, in view of Gail, US 3722915.

Regarding claim 24, Stiller discloses a grooming vehicle as described regarding the 102(b) rejection of claim 20 above. Stiller fails to disclose including a second quick

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attachment comprising male and female couplers, the second quick attachment being provided on a rear of the frame, and mounting a second implement designed for a ground grooming operation.

Like Stiller, Gail discloses a grooming vehicle (12) comprising a quick attachment (11) for mounting a ground grooming implement. Unlike Stiller, Gail discloses:

Regarding claim 24,

- The quick attachment (11) comprising male (15, 15') and female (21, 21') couplers interfitting with one another with the female coupler (21, 21') nesting over the male coupler, the quick attachment (11) being provided on a rear of the frame (Fig. 1); and
- An implement designed for a ground grooming operation mounted to the female coupler (21, 21') of the quick attachment (11) to allow the implement to be mounted on the rear of the frame.

Given the suggestion in Gail, it would have been obvious to one of ordinary skill in the art to include a rear-mounted, ground-grooming implement to the rear of the vehicle (Stiller; 102) disclosed in Stiller because rear-mounted implements are commonly known in the art, and including a rear-mounted implement as taught in Gail on the vehicle of Stiller would allow the vehicle (Stiller; 102) to groom the ground without leaving wheel prints.

Regarding claim 25, Stiller discloses that the implement could comprise a blower (abstract lines 20-23).

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Regarding claim 26, Stiller discloses a grooming vehicle as described above. Stiller fails to disclose a ground grooming implement that is a rake.

Like Stiller, Gail discloses a grooming vehicle, including a ground grooming implement. Unlike Stiller, Gail discloses that the implement could be a rake (column 2 lines 26-30).

Given the suggestion in Gail, it would have been obvious to one of ordinary skill in the art to have the front or rear ground grooming implement be a rake because rakes are commonly known in the art as ground grooming implements.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toni Newville whose telephone number is (571) 272 - 1548. The examiner can normally be reached on Monday - Friday 8 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on (571) 272-6998. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Toni Newville
September 22, 2005



THOMAS B. WILL
Supervisory Patent Examiner
Group 3600